Telecom laser market faces consolidation and growth

The telecom laser and transponder market stands to grow over 30% in 2003, largely due to the continued installation of line cards into existing systems, drawing down inventories. However, with dozens of suppliers competing for a share of the pie, prices and margins will remain squeezed for industry participants, according to a new report by market research firm Strategies Unlimited.

The report, Telecom Lasers, Transceivers, & Transponders: Market Review and Forecast–2003, analyzes the market for telecom laser products for every major telecom network application, and compares installation and shipments for the overall market.

"Traffic is continuing to grow, albeit more slowly, and prices will stabilize enough for revenues in this market to grow beginning in 2003," says Tom Hausken, Optical Communication Components Practice Director at Strategies Unlimited. "But, there is only business for a few key suppliers, plus some additional niche players. The longer it takes to consolidate, the longer will be the pain."

In some respects, the laser market has fared better than many other optical components during the current industry downturn. Laser products are installed into systems not only as new systems are installed, but also as new DWDM channels are added to existing systems. Consequently, laser manufacturers have not experienced the extreme swings seen by manufacturers of fiberoptic cable or optical amplifiers. Additionally, average selling prices (ASPs) of lasers generally have scaled upwards as the data rate of those lasers increased, since higher data rate lasers are expensive to package. ASPs for many passive optical components, by contrast, have risen only modestly with new generations of systems.

Integration of new features into functional blocks, or transponders, provides a higher revenue opportunity for many players in the 10 Gbps and 40 Gbps markets. While their overall penetration into the market is limited, these products sell for higher prices, and also scale well with data rates.

However, the industry remains plagued by inventory buildups that occurred during the initial phase of the industry downturn. As of the end of 2002, excess inventories remained for products aimed at the long haul market, such as continuous-wave lasers on the ITU grid, thus depressing sales of laser diodes. Products in the best inventory position are metro transceivers and newer products such as coarse wavelength-division multiplexing (CWDM) lasers.

Despite slow sales, the number of suppliers has expanded far beyond any reasonable value, to over 100. This is clearly excessive, even for this diverse market, and even allowing for a healthy number of start-up companies as candidates for acquisition. So far, there have been few consolidations or closures in this market segment.

Telecom Lasers, Transceivers, & Transponders: Market Review and Forecast-2003 reviews the applications, markets, technology, and suppliers of laser products in telecom networks. It presents forecasts by application broken down by data rate, wavelength, and other parameters, along with estimates of revenues and market shares of 17 key suppliers of the 85 categorized in the study. For more information, contact Strategies Unlimited at info@strategies-u.com, or check the company's web site at www.strategies-u.com.

High performance 808nm lasers

EpiWorks, Inc., a leading developer and manufacturer of compound semiconductor epitaxial wafers announced the availability of a new capability to produce high-performance 808nm GaAs laser wafers.

"808nm GaAs lasers are a necessity for numerous industrial applications such as marking, coding and soldering," said David Ahmari, Executive Vice President at EpiWorks. " As part of our on-going efforts to expand our GaAs edge-emitter product line, EpiWorks is pleased to announce a production qualified, leading epitaxial material capability for 808nm lasers. We developed this product during the past year and have achieved excellent device performance and reliability."

Typical production data from EpiWorks' AlGaAs/GaAs 808nm industrial laser customers include an output power of 20 Watts, slope efficiency of 1.1 W/A and a threshold current of 7.5 A. These data were taken from a laser bar that employed 46 emitters with an 80 mm stripe width and a 1 mm cavity length. Laser bars utilizing EpiWorks wafers also demonstrate excellent reliability, showing negligible performance degradation after 1200 hours of life testing.

"EpiWorks has been working very closely with our customers to ensure that we are providing the best AlGaAs/GaAs 808nm laser wafers so that our customers achieve leading performance." said Dr. Nada El-Zein, Director of R&D at EpiWorks. "We believe that our ability to interact at a high-level with our customers will continue to enable further, rapid advancements in our materials technology."

Osram grants LED licence to Rohm

Osram GmbH, Munich, and Rohm Co. Ltd., Kyoto, recently signed a patent licence contract. Osram granted Rohm a licence for Osram solely owned patents comprising the manufacture and sale of light emitting diodes (LEDs), which are using light conversion technology. This technology which was developed by the Osram Opto Semiconductors enables above all white LEDs to be produced using blue emitting InGaN-based chips and a suitable fluorescent converter.

"Over the years, we have built up a very strong position in the area of white LEDs and have a good deal of intellectual property at our disposal" explains Dr. Rüdiger Mueller, CEO of Osram Opto Semiconductors. "We are basically willing to grant licences to other companies. The demand for white LEDs is growing so quickly, that for capacity reasons we are not able to provide all the products the market is calling for."

Typical applications of white LEDs are backlighting for displays used in mobile phones and car radios.